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**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.

First Inventor

Dr. Sylvain Fischer

Title

Kerr Integrated Optical Ring Filter

Express Mail Label No.

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☒ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages **19**]  
(preferred arrangement set forth below)
- Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets **6**]
5. Oath or Declaration [Total Pages **2**]
- a. ☒ Newly executed (original or copy)  
Copy from a prior application (37 CFR 1.63 (d))  
(for continuation/divisional with Box 18 completed)
- b. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
- i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

**ADDRESS TO:**Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
- a. ☐ Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ paper
- c. ☐ Statements verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other: \_\_\_\_\_

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No. \_\_\_\_\_ / \_\_\_\_\_

Prior application information:

Examiner: \_\_\_\_\_

Group Art Unit: \_\_\_\_\_

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**19. CORRESPONDENCE ADDRESS**☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

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Date

12/22/2001

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**FEE TRANSMITTAL**  
**for FY 2002**

Patent fees are subject to annual revision.

**TOTAL AMOUNT OF PAYMENT** (\$) 370.00**Complete if Known**

|                      |                     |
|----------------------|---------------------|
| Application Number   |                     |
| Filing Date          |                     |
| First Named Inventor | Dr. Sylvain Fischer |
| Examiner Name        |                     |
| Group Art Unit       |                     |
| Attorney Docket No.  |                     |

**METHOD OF PAYMENT**

- 1.
- ☐
- The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

|                        |  |
|------------------------|--|
| Deposit Account Number |  |
| Deposit Account Name   |  |

☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17☒ Applicant claims small entity status See 37 CFR 1.27

- 2.
- ☐
- Payment Enclosed:**

☐ Check ☒ Credit card ☐ Money Order ☐ Other**FEE CALCULATION****1. BASIC FILING FEE**

| Large Entity |          | Small Entity |          | Fee Description        | Fee Paid |
|--------------|----------|--------------|----------|------------------------|----------|
| Fee Code     | Fee (\$) | Fee Code     | Fee (\$) |                        |          |
| 101          | 740      | 201          | 370      | Utility filing fee     | 370.00   |
| 106          | 330      | 206          | 165      | Design filing fee      |          |
| 107          | 510      | 207          | 255      | Plant filing fee       |          |
| 108          | 740      | 208          | 370      | Reissue filing fee     |          |
| 114          | 160      | 214          | 80       | Provisional filing fee |          |

**SUBTOTAL (1)** (\$) 370.00**2. EXTRA CLAIM FEES**

|                    |   | Extra Claims |   | Fee from below |      | Fee Paid |      |
|--------------------|---|--------------|---|----------------|------|----------|------|
| Total Claims       | 8 | -20** =      | 0 | x              | 0.00 | =        | 0.00 |
| Independent Claims | 1 | -3** =       | 0 | x              | 0.00 | =        | 0.00 |
| Multiple Dependent |   |              |   |                |      |          |      |

| Large Entity |          | Small Entity |          | Fee Description  |
|--------------|----------|--------------|----------|--|
| Fee Code     | Fee (\$) | Fee Code     | Fee (\$) |  |
| 103          | 18       | 203          | 9        | Claims in excess of 20                                     |
| 102          | 84       | 202          | 42       | Independent claims in excess of 3                          |
| 104          | 280      | 204          | 140      | Multiple dependent claim, if not paid                      |
| 109          | 84       | 209          | 42       | ** Reissue independent claims over original patent         |
| 110          | 18       | 210          | 9        | ** Reissue claims in excess of 20 and over original patent |

**SUBTOTAL (2)** (\$) 0.00

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

| Large Entity |          | Small Entity |          | Fee Description  | Fee Paid |
|--------------|----------|--------------|----------|--|----------|
| Fee Code     | Fee (\$) | Fee Code     | Fee (\$) |  |          |
| 105          | 130      | 205          | 65       | Surcharge - late filing fee or oath  |          |
| 127          | 50       | 227          | 25       | Surcharge - late provisional filing fee or cover sheet                     |          |
| 139          | 130      | 139          | 130      | Non-English specification  |          |
| 147          | 2,520    | 147          | 2,520    | For filing a request for <i>ex parte</i> reexamination                     |          |
| 112          | 920*     | 112          | 920*     | Requesting publication of SIR prior to Examiner action                     |          |
| 113          | 1,840*   | 113          | 1,840*   | Requesting publication of SIR after Examiner action                        |          |
| 115          | 110      | 215          | 55       | Extension for reply within first month                                     |          |
| 116          | 400      | 216          | 200      | Extension for reply within second month                                    |          |
| 117          | 920      | 217          | 460      | Extension for reply within third month                                     |          |
| 118          | 1,440    | 218          | 720      | Extension for reply within fourth month                                    |          |
| 128          | 1,960    | 228          | 980      | Extension for reply within fifth month                                     |          |
| 119          | 320      | 219          | 160      | Notice of Appeal   |          |
| 120          | 320      | 220          | 160      | Filing a brief in support of an appeal                                     |          |
| 121          | 280      | 221          | 140      | Request for oral hearing   |          |
| 138          | 1,510    | 138          | 1,510    | Petition to institute a public use proceeding                              |          |
| 140          | 110      | 240          | 55       | Petition to revive - unavoidable   |          |
| 141          | 1,280    | 241          | 640      | Petition to revive - unintentional   |          |
| 142          | 1,280    | 242          | 640      | Utility issue fee (or reissue)   |          |
| 143          | 460      | 243          | 230      | Design issue fee   |          |
| 144          | 620      | 244          | 310      | Plant issue fee  |          |
| 122          | 130      | 122          | 130      | Petitions to the Commissioner  |          |
| 123          | 50       | 123          | 50       | Processing fee under 37 CFR 1.17(q)  |          |
| 126          | 180      | 126          | 180      | Submission of Information Disclosure Stmt                                  |          |
| 581          | 40       | 581          | 40       | Recording each patent assignment per property (times number of properties) |          |
| 146          | 740      | 246          | 370      | Filing a submission after final rejection (37 CFR § 1.129(a))              |          |
| 149          | 740      | 249          | 370      | For each additional invention to be examined (37 CFR § 1.129(b))           |          |
| 179          | 740      | 279          | 370      | Request for Continued Examination (RCE)                                    |          |
| 169          | 900      | 169          | 900      | Request for expedited examination of a design application                  |          |

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)** (\$) 0.00**SUBMITTED BY**

Name (Print/Type) Janice Olyarchuk

Registration No.  
(Attorney/Agent)**Complete (if applicable)**

Telephone +353 1 668 6127

Signature

Date 12/22/2001

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### Receipt for Documents Mailed to PTO

Application Number:

Filing Date:

Title of the Invention: Method of implementing the Kerr effect in an integrated ring resonator (the Kerr Integrated Optical Ring Filter) to achieve all-optical wavelength switching, as well as all-optical tunable filtering, add-and-drop multiplexing, space switching and optical intensity modulation.

Name of Inventor: Dr. Sylvain Fischer

Details of Documents submitted for filing:

| Document  | # of Pages | Received by PTO |
|---|------------|-----------------|
| Utility Patent Application Transmittal (PTO/SB/05)            | 1          |                 |
| Fee Transmittal for FY 2002 (PTO/SB/17)                       | 1          |                 |
| Credit Card Payment Form (PTO-2038)                           | 1          |                 |
| Specification   | 16         |                 |
| Claims – 8  | 3          |                 |
| Informal Drawings – 11  | 6          |                 |
| Declaration for Utility Design Patent Application (PTO/SB/01) | 2          |                 |

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